

**Missouri Assessment Program
Spring 2004**

Mathematics

Released Items

Grade 4



This picture means that you will use your ruler.



This picture means that you will use your coins.



This picture means that you will use your pattern blocks.

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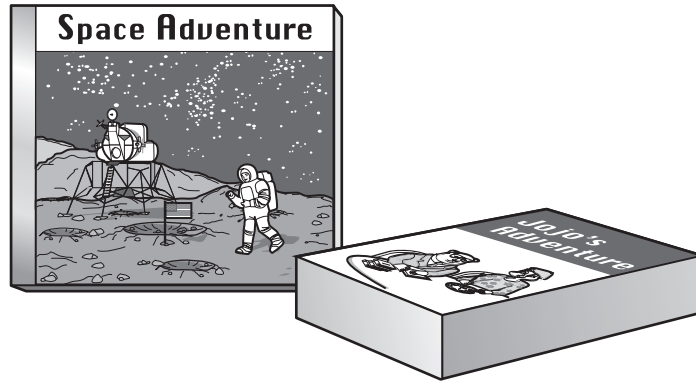


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Bill received \$25.00 for a birthday gift. With the money, Bill wants to buy a video game for \$17.95 and a CD for \$12.88.



Estimate the total cost Bill will pay for a video game and a CD. In the box below, show how you found your estimate.

On the lines below, explain if Bill has enough money to buy a video game and a CD.

Go On ►

9

Everyone at the picnic who played in a sport will receive an award that will be either green (**G**) or orange (**O**). Each award will have **one** ribbon attached that will have stripes (**S**), dots (**D**), or plaid (**P**).

Awards

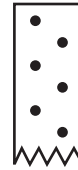
G



O



S



D



P

In the box below, write the letters of all the combinations that can be made for the awards.

Go On ►

Directions

Do Number 10. Show all of your work and write your answers directly in this book.

- 10** Mrs. Stevens' class played a game. The numbers below are the scores her students received.

23, 23, 27, 31, 32, 32, 33, 35, 35, 35, 35, 37, 38, 38, 40, 40, 40

Mrs. Stevens wanted to organize the information into a chart or graph. In the box below, make a chart or graph to show the scores. Be sure to title and label the chart or graph.

On the lines below, write a question for Mrs. Stevens that she can answer by looking at your chart or graph.

DO NOT WRITE HERE ↓

DO NOT WRITE HERE ↓

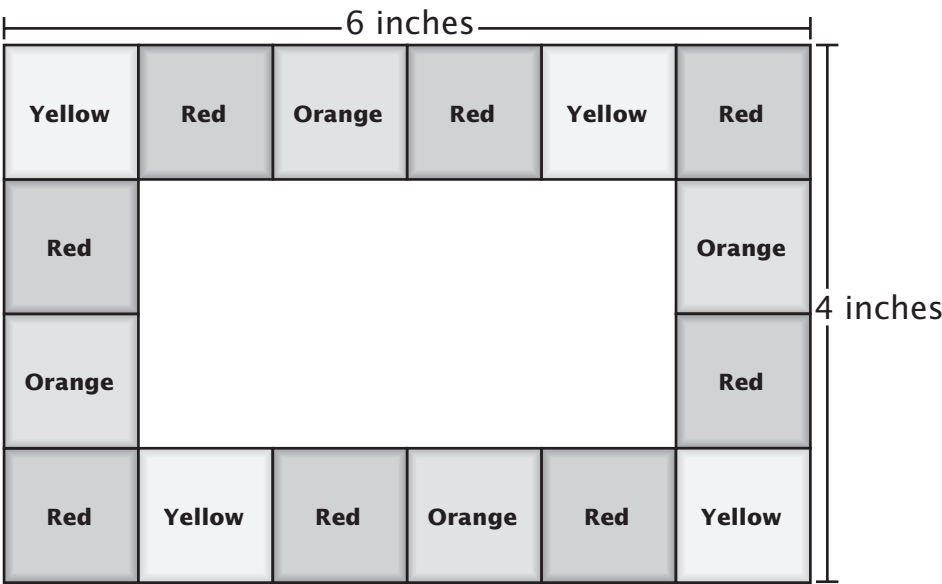
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STOP 

Directions Do Number 1. Show all of your work and write your answers directly in this book.

1 Sarah has created a tile border for a picture frame shown below.



Sarah wants to add the tile border to picture frames of different sizes. Complete the table below to show the number of tiles needed to continue the *pattern* for each of the last two frames.

Frame Size	Total Number of Tiles	Number of Red Tiles	Number of Orange Tiles	Number of Yellow Tiles
6 by 4	16	8	4	4
7 by 5	20	10	5	5
8 by 6	24	12	6	6
9 by 7				
10 by 8				

Sarah also wants to add the tile border for a large frame that measures 102 inches by 100 inches. In the chart below, find the number of tiles she will need for the large frame.

Frame Size	Total Number of Tiles	Number of Red Tiles	Number of Orange Tiles	Number of Yellow Tiles
102 by 100				

On the lines below, explain the rule used for the pattern in order to find the total number of tiles for the large frame and the number of tiles for each color.

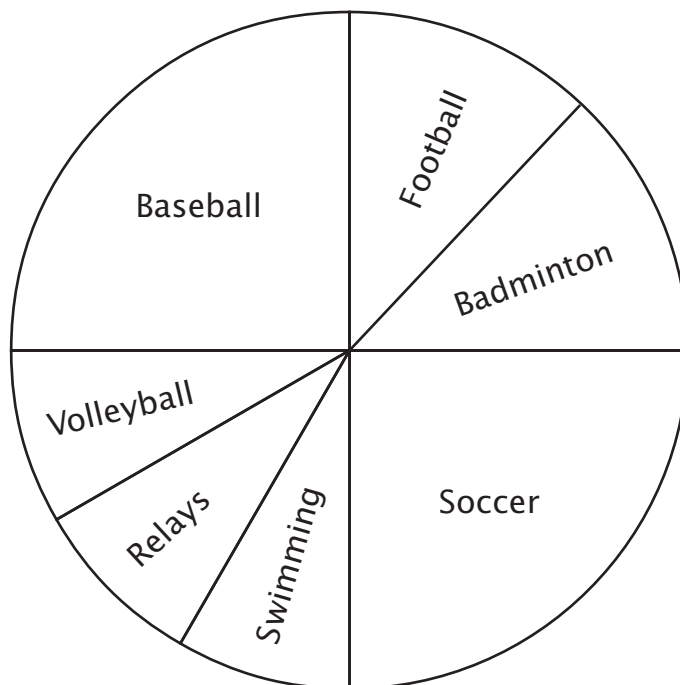
[illegible]

Go On ►

6

All the students at a picnic voted for their favorite activities. Out of a total of 48 students at the picnic, $\frac{1}{4}$ of the students voted for baseball, $\frac{1}{8}$ voted for football, and $\frac{1}{12}$ voted for volleyball. The circle graph below shows how the students voted.

FAVORITE PICNIC ACTIVITIES



Use the circle graph on Page 8 to help you complete the table below to find the number of votes for each activity.

FAVORITE PICNIC ACTIVITIES

Activity	Number of Votes
Baseball	
Football	
Badminton	6
Volleyball	
Relays	4
Swimming	4
Soccer	

Go On ►

8

Look at the number sentence shown below.

$$24 - \square = 19$$

On the lines below, write a story problem that can be solved with the number sentence. Be sure the story problem has a **question**.

In the box below, show your work to solve your story problem and write the answer on the line.

Go On ►

9



Use your pattern blocks to help you solve this problem.

Look at the clues shown below.

- The first and second blocks each have four sides and are different shapes.
- The third block has half as many sides as the fourth block.
- The fifth block has right angles.

On the lines below, use the clues and trace the order of the 5 ***different*** pattern blocks.

1

2

3

4

5